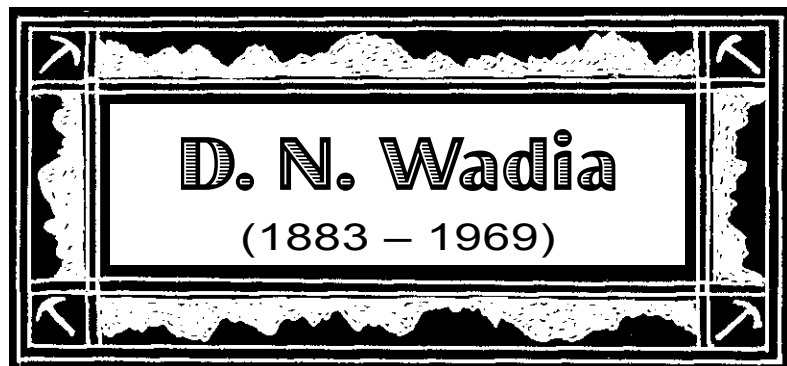
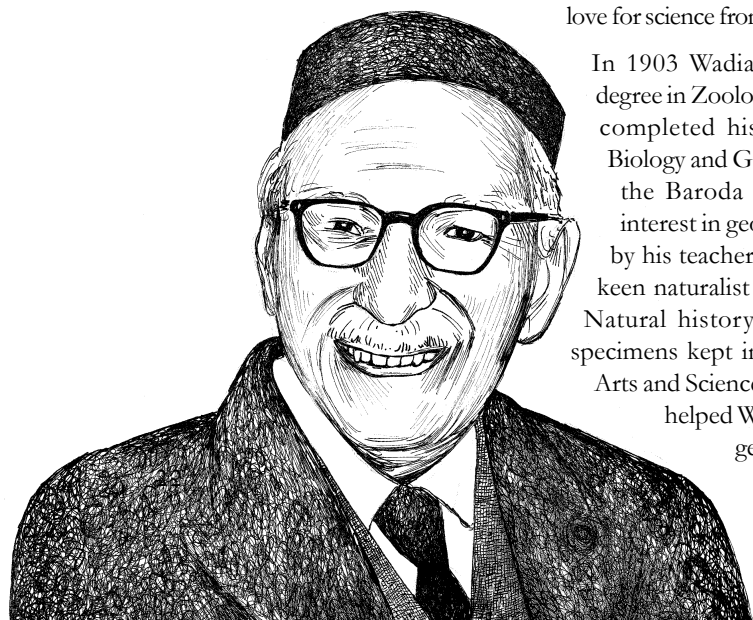




Darashaw Noshewan Wadia was a pioneering Indian geologist whose work laid the foundation for geological investigations in India. His major observations and interpretations in the early days of Indian geology still hold good.

Wadia was born on October 23, 1883 at Surat. He came from the same family as Ardaseer Cursetjee - the naval architect and the first Indian to be elected as a Fellow of the Royal Society (FRS). Wadia's father was a station master posted to a small railway station. As there were no good schools there, Wadia stayed with his grandmother and studied in Surat. Initially he went to a Gujarati school and later to the Sir J. J. English School. When he was 11 years old his family shifted to Baroda where he imbibed a rational outlook and a strong love for science from his elder brother.



In 1903 Wadia obtained a BSc degree in Zoology and Botany. He completed his MSc degree in Biology and Geology in 1906. At the Baroda College, Wadia's interest in geology was aroused by his teacher A. M. Masani - a keen naturalist and Professor of Natural history. The geological specimens kept in the Museum of Arts and Science at Baroda greatly helped Wadia to pursue his geological studies.

INDIAN NATIONAL SCIENCE ACADEMY IN A PLATINUM JUBILEE By: Arvind Gupta Pix: Karen Haydock



*Nanga Parbat*

In 1907 Wadia joined the Prince of Wales College in Jammu as a Professor of Geology where he served for 14 years. Later it was renamed as Mahatma Gandhi College and is now affiliated to the Jammu University. Besides geology, Wadia also taught English, a testimony of his command over the language. During the Jammu stay Wadia spent his vacations trekking the Himalayas and familiarized himself with its geology. He collected minerals, rocks and fossils which he used extensively to make the teaching of geology interesting.

He took students on adventure treks and investigative field trips in the Siwalik Hills of the Jammu region. His keen eye for observations helped him identify many significant artefacts. It was in one of these trips that he discovered a 3 metre long fossil tusk of an elephantine mammal *Stegodon ganesa*, a finding of crucial importance. He climbed peak after peak in the Himalayas to better understand its geology and structure. Wadia explained the abnormal sequence of rock formations of varied ages in the North-Western Himalayas and also the unique knee-bend of the mountain chains around the Nanga Parbat. Deeply devoted to the study of the Himalayas he was responsible for the establishment of the Institute of Himalayan Geology in Dehradun and became

its founder director (1968-69). The Institute was later renamed as the Wadia Institute of Himalayan Geology in Wadia's memory. He was intimately associated with the establishment and functioning of the National Geophysical Research Institute at Hyderabad and the National Institute of Oceanography in Panaji, Goa.



In 1921 Wadia left the Prince of Wales College, and joined the Geological Survey of India (GSI) as an Assistant Superintendent. He was just 38 years old and the first Indian without any European degree to be appointed in the GSI. Working in the GSI provided him ample opportunities for carrying out further geological investigations in the north-western Himalayas where he made pioneering contributions. R. D. West wrote: *"Wherever Wadia travelled in the Himalayas he was successful in throwing significant light on problems of stratigraphy and tectonics which had hitherto remained uninvestigated or unexplored."*

Wadia authored about one hundred original research papers, monographs on various geological topics. In 1928 he discovered a very well preserved skull of *Actinodon* which led to the fixing of the age of an important geological rock formation in the Kashmir Himalayas. He also discovered the existence of vast reservoirs of sulphide ores of copper, nickel, lead and zinc.

While working in the Geological Survey of India, Wadia spent his study leave (1926-1927) at the British Museum, where he worked on the vertebrate fossils collected from Kashmir. During this period he also visited geological institutions in Germany, Austria and Czechoslovakia.

Wadia noted the neglect of soil science in India and showed the way for its rectification by his own writings. In 1935 Wadia, jointly with M. S. Krishnan and P. N. Mukherjee, published the first *Soil Map of India*. This was published by the Geological Survey of India and paved the way for later soil maps.

After his retirement from the Geological Survey of India in 1938 he joined the Government of Sri Lanka (then Ceylon) as a Mineralogist. His studies included accurate geological maps of the island and geological investigations concerning water supply, dam-sites and other engineering projects. Wadia produced the first geological sketch map of Colombo.

Wadia was the founder director of the Indian Bureau of Mines (1947) and the Atomic Minerals Division (1949-69). He was an ardent advocate of a national policy for the search, utilization and conservation of mineral resources including

gas, oil and water. He was an avid reader and wrote the first authoritative textbook on Indian geology. Wadia's book, which proved to be a classic on the subject, reached its sixth edition in 1966. Commenting on the book, K. S. Valdyia wrote: *"The erudite book he wrote—The Geology of India—published in 1919 by the Macmillan, London, distils his vast and intimate knowledge of the geology of the entire Indian subcontinent, embracing Pakistan, India, Bangladesh, Myanmar and Sri Lanka. This classical work, which had six editions, made him not only a celebrity but also a guru of countless generations of students of geology all over the world."* Wadia was extremely energetic and hardworking and lived a simple life.

In 1945 Wadia was appointed the Geological Advisor to the national government of Jawaharlal Nehru. He initiated and formulated a mineral policy for the country. In 1963 the Government of India made him the first National Professor in geology. The government of India honoured him with the award of Padma Bhushan (1958). In 1957 Wadia was elected a Fellow of the Royal Society of London. He was showered with numerous national and international awards and honorary doctorates from various universities.

Wadia wrote some amazing popular science essays – *The Story of a Stone* being a classic. In it he succeeds in giving us several fundamental lessons in geology, all the while keeping us absorbed in its autobiography. After reading it one feels there are true *sermons in stones*. The doyen of Indian geology died on June 15, 1969 at the age of 86.



A postal stamp honouring D.N. Wadia (above)

A geological structural sketch of the Nanga Parbat region of the Himalayas (right)

